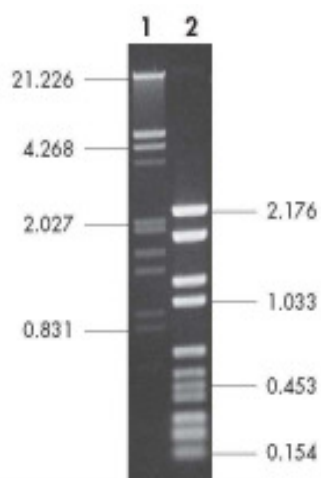


## Features Agarose: Agarose universal



1% 1x TAE Universal Agarose gel showing separation of  $\lambda$ -DNA digested with *EcoR I/Hind III* (1) and a mixture from pBR328-DNA digested with *Bgl I* and *Hinf I* (2). Data in kbp.

### Features Agarose:

- High separation properties and sharp band patterns
- Easy solubility without foaming
- Excellent optical transparency

### Applications Agarose:

- Separation of PCR products
  - DNA: approx. 0.05 kbp – 50 kbp
  - RNA: approx. 0.30 kb – 20 kb

### Specifications Agarose:

- Gelling temperature:  $\leq 37$  °C
- Melting temperature:  $\leq 90$  °C
- Electroendosmosis:  $\leq 0.140$
- Gel strength (1.5 %):  $\geq 2300$  g / cm<sup>2</sup>
- Sulphate content:  $\leq 0.10$  %
- Water content:  $\leq 10.0$  %

### Quality Assurance Agarose:

- 'Molecular Biology Grade'
- Certified free of DNases and RNases
- No DNA binding
- High lot-to-lot consistency

### Usage of Agarose:

#### Method 1: Microwave oven

1. Pour buffer (approx. 90 % of final volume) into an appropriate flask that can accommodate up to four times the final gel volume and add a magnetic stir bar.
2. Put the flask onto a magnetic stirrer and slowly add agarose powder while stirring constantly to avoid clotting.
3. Remove magnetic stir bar.
4. Add remaining buffer up to the desired final volume.
5. Weigh and record the weight of agarose and all components the flask prior to heating. Heat for 1 – 2 minutes in a microwave oven (600 Watt). Gently swirl the flask to mix the solution. Warning: Due to microwave heating, there may be a delay in the liquid boiling!
6. Using the microwave oven, heat in short bursts of 5 – 10 seconds or until the solution is boiling, with breaks of 10 – 15 seconds between heating phases to disperse bubbles by gently swirling the flask. Beware of hot glass ware and liquid. Continue until the agarose is completely dissolved.
7. Again, weigh the flask and top up lost volume with warm, deionized water. Gently swirl the flask to ensure complete mixing of agarose and all components.
8. Let the solution cool down at room temperature for 15 – 20 minutes or until a gel temperature of 50 – 60 °C is reached.

#### Method 2: Simmering water bath

1. see method 1 (agarose in micro wave oven): steps 1 – 2 and 4
2. Weigh and record the weight of the flask prior to heating. Heat agarose suspension up in a simmering water bath with constant stirring.
3. Leave the flask in the water of agarose and all components bath for further 15 – 20 minutes, or until the agarose is completely dissolved.
4. Switch off the magnetic stirrer and leave the flask in the bath for further 15 minutes.
5. Again, weigh the flask and top up lost volume with warm, deionized water. Gently swirl the flask to ensure complete mixing of agarose and all components.
6. Let the solution cool down at room temperature for 15 – 20 minutes or until a gel temperature of 50 – 60 °C is reached.

**Storage:** Agarose can be stored at room temperature for more than 4 years

### Order Information:

Cat.-no	Description	Amount
604-001	Agarose universal	100 g
604-005	Agarose universal	500 g